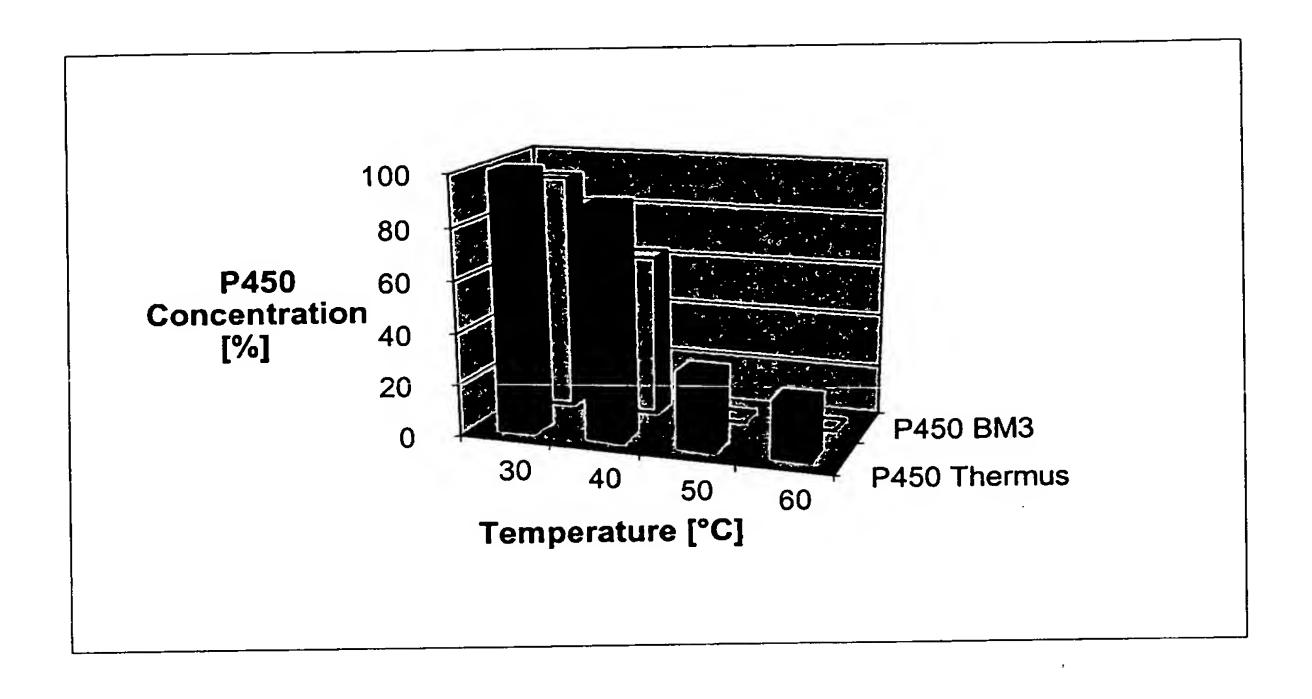
10/521916

Fig. 1

P450 P450	BM3 thermus	TIKEMPQPKTFGELKNLPLLNTDKPVQALMKIADELGEIFKFEAPGRVTRYLSSQRLIKE 6 -MKRLSLREAWPYLKDLQQDPLAVLLAWGRAHPRLFLPLPRFPLALIFDPE-GVEG 5 :*.:. ::: **:* :: ::: ::: ::: :::	54
P450 P450	BM3 thermus	ACDESRFDKNLSQALKFVRDFAGDGLFTSWTHEKNWKKAHNILLPSFSQQAMKGYHAMMV 1 ALLAEGTTKATFQYRALSR-LTGRGLLTDWGESWKEARKALKDPFLPKNVRGYREAME 1 * * * * : * :: * **: * : * : * : * : *	120 111
P450 P450	BM3 thermus	DIAVQLVQKWERLNADEHIEVPEDMTRLTLDTIGLCGFNYRFNSFYRDQPHPFITSMVRA 1 EEARAFFGEWRGEERDLDHEMLALSLRLLGRALFGKPLSPSLAEHALKA 1 : * :: :* :: :: :: :: :: :: :: :: :: ::	180 160
P450 P450	BM3 thermus	LDEAMNKLQRANPDDPAYDENKRQFQEDIKVMNDLVDKIIADRKASGEQSDDLLTHMLNG : LDRIMAQTRSPLALLDLAAEARFRKDRGALYREAEALIVHPPLS : **	240 204
P450 P450	BM3 thermus	KDPETGEPLDDENIRYQIITFLIAGHETTSGLLSFALYFLVKNPHVLQKAAEEAARVLVD HLPRERALSEAVTLLVAGHETVASALTWSFLLLSHRPDWQKRVAESEEAALAA : * ::*:*:*****.:. *:::::::::::.***.	
P450 P450	BM3 thermus	PVPSYKQVKQLKYVGMVLNEALRLWPTAPAFSLYAKEDTVLGGEYPLEKGDELMVLIPQLFQEALRLYPPAWILTRRLERPLLLG-EDRLPPG-TTLVLSPYV ::****:*.* :: :: :** * * : :** * ::	360 298
P450 P450	BM3 thermus	HRDKTIWGDDVEEFRPERFENPSAIPQHAFK <u>PFGNGORACIGQQFALHE</u> ATLVLGMMLKH TQRLHFPDGEAFRPERFLEERGTPSGRYFPFGLGQRLCLGRDFALLEGPIVLRAFFRR : * * * ***** : . * . : *** *** *: *: *** * : **	420 356
	BM3 thermus	FDFEDHTNYELDIKETLTLKPEGFVVKAKSKKIPLGGIPS-PSTEQSAKKVR 471 FRLDPLPFPRVLAQVTLRPEGGLPARPREEVRA 389 * :: : : :**:**	

Fig.2



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zeaxanthin

CYP175A1

\beta-carotene

FIG. 4A: BETA - CAROTENE (Standard):

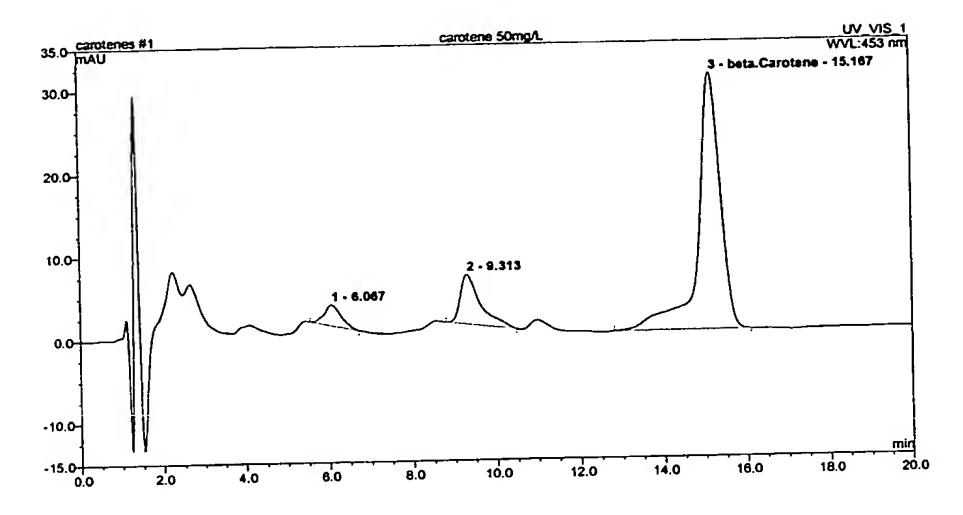


FIG. 4B: ZEAXANTHIN (Standard):

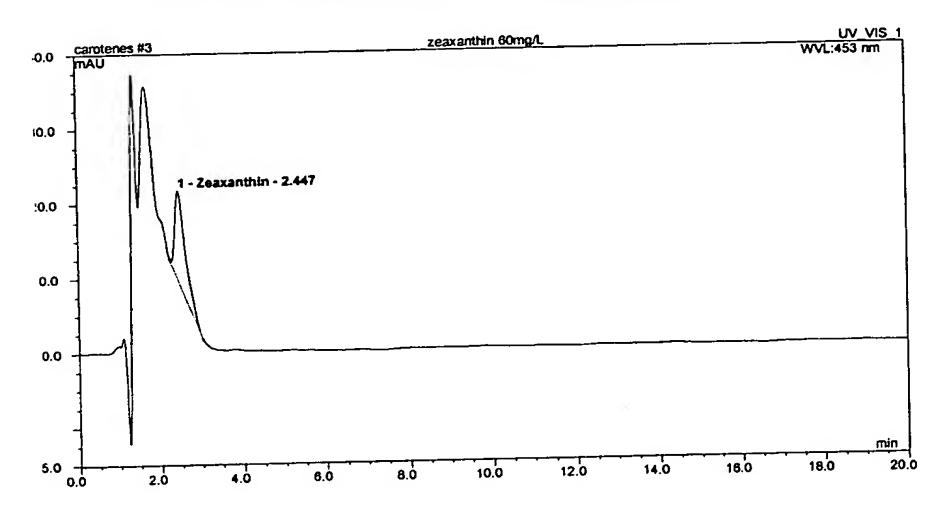


FIG 4C: Cryptoxanthin (Standard):

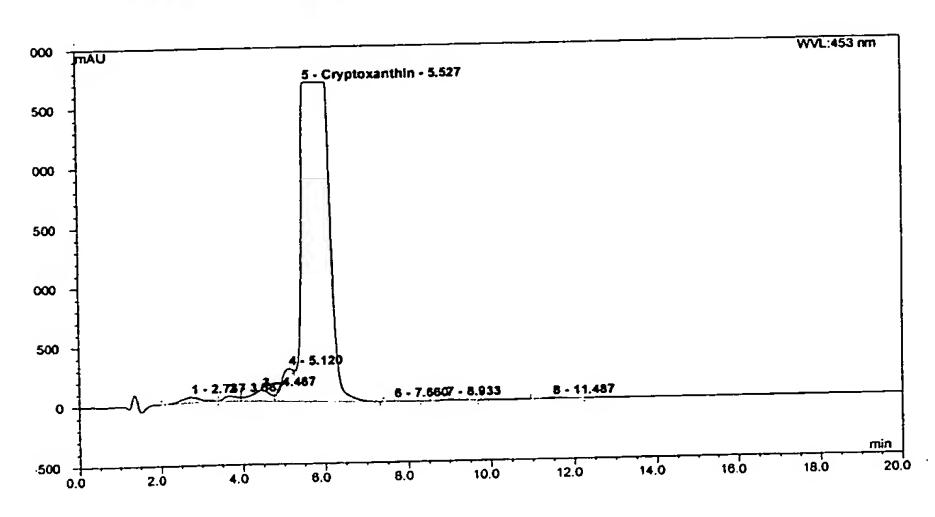


FIG. 5A: Sample Y (*E. COLI* comprising *CRTE*, *CRTB*, *CRTI* AND *CRTY* from *E. UREDOVORA*):

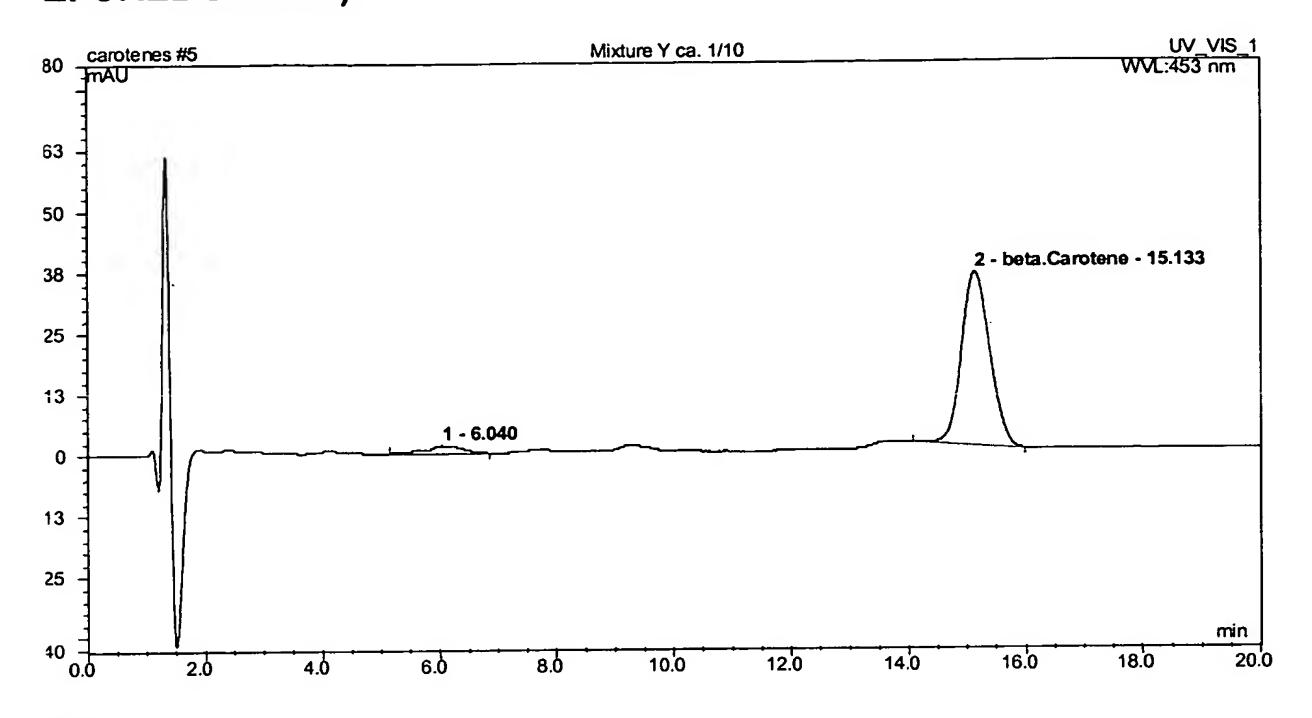


FIG. 5B: Sample YF (*E. coli* comprising *CRTE*, *CRTB*, *CRTI* AND *CRTY* from *E. UREDOVORA* + PKK_CYP):

